

A composite image featuring a close-up of water splashing over a bowl of fresh fruit (raspberries, blackberries, and red grapes) on the left, and a large, dynamic splash of water on the right. The background is a soft-focus green landscape. The entire image is framed by a dark blue curved border at the bottom and a light blue curved border on the right.

ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED IN 2015

Presented By



SUTTER COMMUNITY
SERVICES DISTRICT

Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

Steven Thompson, Chief Operator (530) 870-6024

Geri Goetzinger, General Manager (530) 755-1733

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Community Participation

You are invited to participate in our public forum and voice your concerns or questions about your drinking water. The Board of Directors meet the 1st Monday of each month beginning at 6:30 p.m. at the District office, 1880 Acacia Avenue. Your Water Board of Directors: David Williams, President, Annette Babb, 1st Vice President, Jim Barringer, Director, Joel Farias, Jr., Director, and Larry Crabtree, Director.

Source Water Assessment

A Source Water Assessment Plan (SWAP) has been completed. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. The sources are considered most vulnerable to the following activities not associated with any detected contaminants:

- Well 1 & Well 2B: Septic systems, agricultural drainage, unauthorized dumping
- Well 3: Gas stations, septic systems, pesticides/fertilizer/petroleum transfer and storage

A copy of the complete assessment may be viewed at:

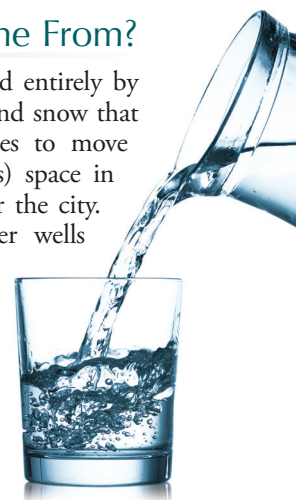
State Water Resource Control Board		Sutter CSD
Valley District 364 Knollcrest Drive Suite 101 Redding, CA 96002	or	1880 Acacia Avenue Sutter, CA 95982
Reece Crenshaw, (530) 224-4861		Geri Goetzinger, (530) 755-1733

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/lead.

Where Does My Water Come From?

Our drinking water supply is provided entirely by groundwater. Groundwater is rain and snow that soaks through the ground and continues to move downward through pore (small openings) space in the soil until it reaches the aquifer under the city. The District operates three groundwater wells (although in September 2015 well 2-B was shut down due to arsenic levels) and a 750,000 gallon storage tank. We serve over 1,065 homes, schools, and businesses. Future plans are to add another water storage tank as funding becomes available.



Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

Kitchen Sink and Drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed-up water in which bacteria (e.g., pink and black slime) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

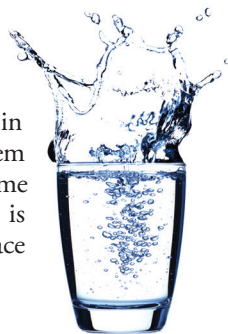
Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets and can collect particles like sediment and minerals, resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

Water Filtration and Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filter!)



Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And, water has no sugar or caffeine.

How long can a person go without water?

Although a person can live without food for more than a month, a person can only live without water for approximately one week.

When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

Seventy-one percent of Earth is covered in water: how much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Regulated Substances											
				Well 1		Well 3		Well 2-B			
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source
Antimony (ppb)	2015	6	20	6	NA	NA	NA	NA	NA	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic ¹ (ppb)	2014	10	0.0004	7.1	NA	9.2	NA	12 ^{2,3}	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Carbofuran (ppb)	2015	18	1.7	NA	NA	5	NA	NA	NA	No	Leaching of soil fumigant used on rice and alfalfa, and grape vineyards
Fluoride (ppm)	2008	2.0	1	0.24	NA	0.3	NA	0.23	NA	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Glyphosate (ppb)	2015	700	900	NA	NA	20	NA	NA	NA	No	Runoff from herbicide use
Hexavalent Chromium (ppb)	2015	10	0.02	7.2	NA	7.4	NA	7.4	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2015	10	10	2.8	NA	0.5	NA	1.5	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite [as nitrogen] (ppm)	2014	1	1	0.5	NA	0.5	NA	0.5	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Distribution System											
Substance (Unit of Measure)		Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]		Amount Detected	Range Low-High	Violation	Typical Source		
Total Coliform Bacteria [Total Coliform Rule] ⁴ (# positive samples)		2015	No more than 1 positive monthly sample			(0)	2	NA	Yes	Naturally present in the environment	
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.											
Substance (Unit of Measure)	Year Sampled	AL	PHG (MCLG)	Amount Detected (90th%tile)	Sites Above AL/Total Sites	Violation	Typical Source				
Copper (ppm)	2014	1.3	0.3	0.418	0/10	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives				
Lead (ppb)	2014	15	0.2	1.9	0/10	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits				
Other Substances											
			Well 1		Well 3		Well 2-B				
Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Typical Source			
Hardness (ppm)	2008	140	NA	180	NA	175 ⁵	NA	Erosion and leaching of natural deposits			
Sodium (ppm)	2015	24	NA	13	NA	22	NA	Erosion and leaching of natural deposits			

¹While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

²Sampled in 2015.

³Well 2B was shut down in September 2015 due to Arsenic levels above the MCL of 10 ppb.

⁴In June of 2015 we collected 2 Positive samples in the distribution system and received a citation for noncompliance from the State Water Resources Control Board. A Public Notice was sent to all customers and the problem was corrected. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

⁵Sampled in 2011.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

NS: No standard

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).